The Southern Perspective

Providing Leadership for the South's Forests

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JULY 2009

PRESIDENTIAL HOME EARNS CERTIFIED STEWARDSHIP FOREST DESIGNATION

John Campbell, Virginia Department of Forestry

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Nestled in the rolling hills of Virginia's Piedmont region, Montpelier, which was home to James Madison – America's fourth president – has earned Certified Stewardship Forest status. The owners of the 2,650-acre property have worked with the Virginia Department of Forestry (VDOF) for more than 60 years to ensure proper forest management is practiced on the property.

VDOF Area Forester Erik Filep presented Montpelier Foundation President Michael Quinn with a plaque and Stewardship Forest sign commemorating the designation during a ceremony on the grounds April 18th. More than 750 people attended the presentation, including keynote speaker U.S. Congressman Tom Perriello.

Montpelier's property features a 200-acre Landmark Forest consisting of trees 200 to 300 years old and up to five feet in diameter. Three state champion trees – an English Oak, a Holly Leaf, and a Spanish Fir – are adjacent to the mansion. The Foundation is also working with VDOF to establish a demonstration forest that features management options for immature hardwood stands, overstocked poplar stands, deteriorating red oak stands, and old field sites overtaken by invasive species.

Montpelier was established in 1723 by President Madison's grandfather. The property passed down to his father and then to President Madison. It remained in the

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SOUTHERN GROUP OF STATE FORESTERS

The Southern Group of State Foresters is comprised of the state forestry directors from the 13 Southern states, U.S. Virgin Islands, and the Commonwealth of Puerto Rico as well as leadership from the USDA Forest Service Southern Region, the Southern Research Station, and the International Institute of Tropical Forestry. Collectively, they provide leadership for the South's forests.

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MESSAGE FROM THE CHAIRMAN

What's New…

We are moving an intense legislative and government agenda that includes issues from climate, biomass to ARRA funds and other regional and national projects. Since my first message in the Southern Perspective (November 2008), I have been a strong advocate of considering and promoting partnerships. During our annual meeting last month, we had the opportunity to share ideas, programs and projects through a partner's session. In that session, we shared information and potential integration of projects state foresters can consider in their states.

For example, the Nature Conservancy develops eco-regional plans that can be an additional tool or document for review as part of the state assessments. American Forest and Paper Association, the Southern Regional Extension Forester's office and projects such as the Partnership of Southern Forestland Conservation were presented and discussed. At this time when we are working on state assessments, the information from the meeting can be useful to expand the scope of analysis and to consider potential partners to help address the issues identified through the assessment.

The "Redesign" of the State and Private Forestry (S&PF) program identified a need for more progressive strategies for conservation of forests resources and also established the "competitive resource allocation" process. Through all these actions and events, plus the regular activities that State Foresters face daily, partnerships are a strategy that can help us to optimize public benefits from trees and forests. Using the concise set of national themes of the State and Private programs, we can bring more people to the table with specific desired outcomes to facilitate the participation of partners. We are also enhancing our relationship with other agencies in the U.S. Department of Agriculture to provide more options for landowners and communities. At this time and under our dynamic government agenda, partnerships can assist in our mission and delivery of services.

The Southern Group of State Foresters has moved forward and will continue to provide the opportunity for new partnerships at regional and state level. I want to thank all the state foresters and SGSF staff who have worked with NASF, Forest Service and numerous other partners in strengthening these opportunities. SGSF has set the bar high as to how partnerships, collaboration and communications can help move projects forward working under a common agenda.

SOUTHERN GROUP OF STATE FORESTERS

OKLAHOMA YOUTH FORESTRY AND WILDLIFE CAMP

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Oklahoma Forestry Services and its partners organized the 53rd annual Oklahoma Youth Forestry Camp that ran June 8 to 13 in Beavers Bend State Park near Broken Bow in far southeastern Oklahoma.

With 45 campers, ages 13 to 15, this year's camp was at capacity. A dedicated staff of youth counselors, adult volunteers and a cadre of natural resource professionals from many supporting organizations made the event a success.

Youth Forestry and Wildlife Camp provides students the opportunity to experience the forestry and wildlife professions; learn about Oklahoma's natural resources, and build an awareness of environmental issues in Oklahoma. Hands-on activities include forest management, stream ecology, fire management, wildlife management and urban forestry.

Additional details on this and other educational programs are available at Oklahoma Forestry Services' Web site: www.forestry.ok.gov.

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Madison family for 121 years until it was sold by President Madison's widow, Dolley, in 1844 (six years after the President's death at the age of 85). The property changed hands several times until it was purchased by the DuPont family in 1901. The mansion grew in size from 22 rooms to 55 rooms over the years. In 2004, the Montpelier Foundation, which now owns the home and the property, began a major project to restore the mansion to the size and appearance of the place when the Madisons moved back there at the end of the President's second term.

President James Madison is best known as the "Father of the U.S. Constitution" and the "Architect of the Bill of Rights." He served as Secretary of State for President Thomas Jefferson and was elected President of the United States in 1808. He is one of only a handful of Presidents who have led troops on the battlefield (during the War of 1812). Two years after completing his second term as President, Madison founded the American Colonization Society that was dedicated to freeing slaves and returning them to the West Coast of Africa.

State Forester Carl Garrison said, "The Virginia Department of Forestry is proud of its long association with this spectacular and historic property. We're most fortunate to be able to work with the dedicated professionals who oversee the property and understand the uniqueness of their forested land. Montpelier is a national treasure."

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FLORIDA HARVESTS BUMPER CROP OF LONGLEAF PINE SEED

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The old expression about "making hay while the sun still shines" certainly applies to collecting longleaf pine seed. Although the demand for longleaf seedlings has increased each year since the early 1990s, abundant crops of longleaf pine cones occur only every three to seven years. So, when the foresters at Blackwater River State Forest (BRSF), which is located just north of Pensacola, FL, discovered a plethora of green longleaf cones in the spring of 2008, the Florida Division of Forestry prepared to mobilize its resources to harvest these cones once they ripened in the fall.

Harvesting operations were coordinated by Reforestation Supervisor Steve Gilly and BRSF Tree Improvement Manager Chris Cook. Work began Oct. 10, 2008, and concluded 20 days later. Three private seed companies helped to harvest the longleaf cones from BRSF, with a portion of the seed provided to the Florida Division of Forestry as compensation. In the end, a total of 32,000 bushels of longleaf pine cones were collected. The seed from these cones has the potential to produce 178 million longleaf pine seedlings.

Gilly reports that the seed yields per bushel of cones are averaging 25 percent higher than they do in a typical year. Also, the germination rates on test plots are averaging 90 percent, which is exceptional for longleaf pine. "These increases typically occur in years when the cone crop is exceptionally high," said Gilly. "Overall, this is the best longleaf pine cone crop since 1996."

Why the urgency to collect longleaf pine seed? According to Mark Hainds of the Longleaf Alliance, successive years of poor cone crops caused the price of this seed to increase from $50 to $60 per pound in 2003, to $160 per pound in 2008. Supplies of stored longleaf pine seed throughout its native range were nearly depleted. Now, due in large part due to Florida's efforts, nurseries will be able to grow enough longleaf seedlings to satisfy demand for the immediate future. Prices for seed have dropped to below $100 per pound. Hainds reports that similar efforts in southern Alabama also helped to bolster longleaf pine seed supplies.

Slash and loblolly pine, unlike longleaf, can be expected to produce sufficient seed crops at least every two to three years. Also, the majority of seed for these two pine species is harvested from a number of established seed orchards. Most longleaf pine seed, however, must come from trees growing in the forest to meet current demand for seedlings. According to Hainds, efforts have been made in the past 20 years to establish additional longleaf pine seed orchards, mainly in the Gulf Coast area. Unfortunately, the various hurricanes that have impacted the Gulf Coast between 1995 and 2005 have caused either production curtailment or outright closure of most of the newer orchards. The seed orchard at BRSF experienced extensive damage from Hurricane Ivan in 2004. So, mobilization efforts similar to 2008 will be necessary for the immediate future to take advantage of good longleaf pine seed years.

"Longleaf pine seedling production has increased from almost 62 million in 1996, to almost 74 million in 2008, with a high of 115 million in 2000," says Hainds. "Container-grown trees now account for almost 90 percent of those produced, as opposed to only about 50 percent in 1996." Containerized trees are significantly more expensive than the bare-root seedlings. Unlike bare-root seedlings, however, they can be planted outside the dormant season during months when abundant rainfall typically occurs. Containerized seedling survival rates tend to be higher (with some exceptions), providing landowners and managers who plant them with an increased likelihood of success.

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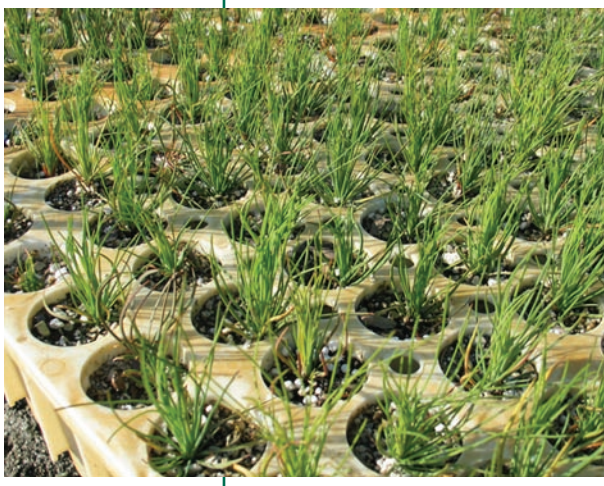
Interest in planting longleaf pine has increased significantly. Acreage of longleaf pine has decreased from an estimated 90 million acres at the time of European colonization to roughly four million acres today. The combined acreages of the BRSF and the adjacent Conecuh National Forest in southern Alabama serve as the largest contiguous example of what much of the South's forests once looked like. Public land managers have been encouraged to return at least a portion of the lost acreage to its former grandeur. Private non-industrial forest landowners who have purchased forest lands that were once dedicated to intensive timber production are also re-establishing longleaf pine to achieve management objectives in addition to timber growth. Longleaf pine trees and the seed they produce provide essential habitat components for species of fauna, such as the Sherman's fox squirrel and the red-cockaded woodpecker. The ability to prescribe burn longleaf pine at a younger age than other southern pines also enhances the restoration of native ground cover species.



Longleaf tends to have more resistance to damage from the insects and diseases that commonly plague the other popular southern pine species. It was also observed, in southern Mississippi following Hurricane Katrina in 2005, that a stand of longleaf pine trees withstood damage better than an adjacent stand of loblolly pine of the same age. In addition to the ecological benefits, longleaf pine straw tends to bring a higher price than that from other pine species, and the trees produce a higher quality wood at maturity.

OKLAHOMA STUDENT TAKES NATIONAL HONORS

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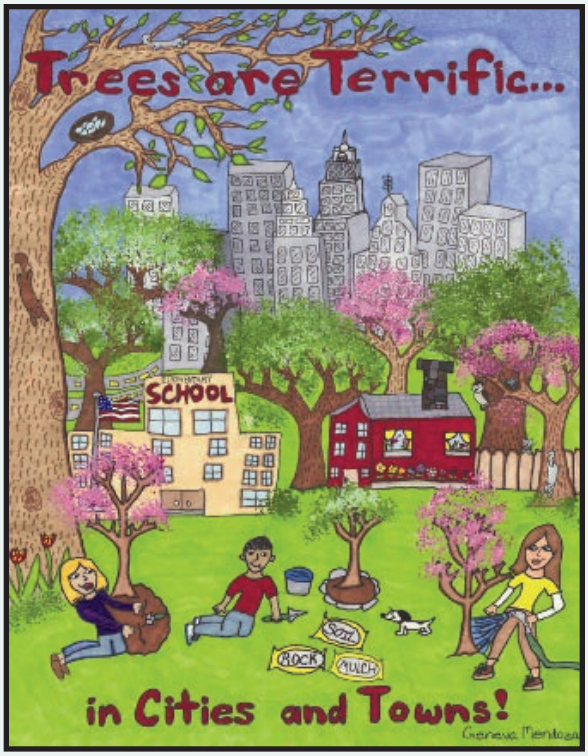
For the second year in a row, the National Arbor Day Foundation selected Oklahoma's Arbor Day Poster Contest winner as the overall winner of the National contest. Oklahoma's entry placed second nationally in 2007 before winning it all in 2008, and again in 2009.

The 2009 winning poster was drawn by Geneva Mendoza of Maryetta School in Stilwell. Geneva is a student in Samilou Smith's 5th grade art class. The 2008 national winner, Michelle Holiman, was also a student of Ms. Smith.

Oklahoma State Forester John Burwell said, "Thanks to the efforts of our Project Learning Tree (PLT) Coordinator Christina Stallings, Ms. Smith has totally embraced PLT, and it's obvious her enthusiasm for trees carries over into the classroom and her students."

Ms. Stallings said, "Every November, I look forward to receiving poster entries from across the state. Each one is unique, wonderful and a winner in my opinion! Winning the national contest was the ultimate reward and recognition for the students' hard work."



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WOODCOCK AND GODBOLD NAMED TREE FARM INSPECTORS OF THE YEAR

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Connie Woodcock and Sean Godbold were recently honored as the 2008 Kentucky Tree Farm Inspectors of the Year at the Kentucky Forest Industries Association (KFIA) 44th Annual Meeting in Lexington, KY. Both are foresters for the Kentucky Division of Forestry who have helped advance forest management through their work with private landowners and the Kentucky Tree Farm program, which recognizes and certifies landowners for practicing sustainable forestry.

Connie (South Central District) and Sean (Eastern District) each completed four new tree farm inspections and tied for the inspector award this year. Each forester inspected the properties to ensure that the landowners are practicing sustainable forestry under the established standards and guidelines of the national Tree Farm program. Each farm must pass inspection to become a Certified Tree Farm. After certification, the landowner receives a Tree Farm sign to place on his or her property. To maintain certification, landowners must implement a management plan based on strict environmental standards and pass an inspection every five years.

Kentucky has more than 800 certified tree farms owned by private woodland owners who manage their forests for a wide range of environmental, economic and social benefits. Certified Tree Farmers share a unique commitment to protect wildlife habitat and watersheds, to conserve soil and to provide recreation for their communities while producing wood for America, and these individuals hold the key to sustaining our forests.

Landowners who wish to become involved in the program should contact the division's district office serving their county. For more information, visit the division's Web site at www.forestry.ky.gov or contact the division at 1-800-866-0555.

KY Tree Farm Committee Vice Chair Cary Perkins with Inspectors of the Year: Connie Woodcock and Sean Godbold.

CONWAY-ROBINSON STATE FOREST AND MANASSAS NATIONAL BATTLEFIELD PARK CONNECTOR TRAIL DEDICATED

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In an effort headed by the Potomac Appalachian Trail Club (PATC) and the late Annie Snyder, an easement now connects the Conway-Robinson State Forest and the Manassas National Battlefield Park -- two large parcels of land in congested Northern Virginia.

On Saturday, May 23, 2009, approximately 25 people came together for a dedication of the "Annie Snyder and Cary Jones Memorial Trail." This short (one mile) foot path joins the 440-acre State Forest with the 5,073-acre Battlefield complex along the unfinished Orange and Alexandria Railroad. The O & A Railroad played a significant role in the Civil War battle of Second Manassas, which makes this not only a physical connection but, for many, a historical and emotional connector as well.

The Manassas National Battlefield Park (MNBP) and the Conway-Robinson State Forest (CRSF) have long shared in the history of the area and now offer to expand upon both Agencies' assets by supporting this effort.

For their dedication to this project, the Virginia Department of Forestry extends its thanks to the Snyder and Jones families; MNBP Superintendent Ed Clark; John "Bud" Cunnally and John Hedrick along with the many other volunteers of the PATC.

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PLANS UNDERWAY AT ROLLEIGH PETERSON EDUCATIONAL FOREST

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The Rolleigh Peterson Educational Forest, purchased last summer by the Kentucky Division of Forestry (KDF) and Louisville Metro Parks, will ultimately become a public park as well as a carefully managed walnut plantation. The property, which is located along Floyds Fork in Jefferson County, was purchased to expand publicly accessible park lands and to continue forest management on one of the largest known walnut plantations east of the Mississippi River.

The previous owners, Rolleigh and Patricia Peterson, planted and maintained approximately 5,800 black walnut trees on the 98-acre farm as an investment for their daughter, Susan Peterson Trendel, who died in 1998. Many of the trees were planted in the early 1970s and were managed until Mr. Peterson died in 2005. In 2008, Ms. Peterson sold the property to the Louisville Metro Government and the Commonwealth of Kentucky providing that it serve as a legacy to her late husband and daughter.

City and state officials are developing a forest stewardship management plan to ensure sustainability of the plantation. Stewardship activities, such as removing vines, eliminating invasive species, pruning limbs and thinning undesirable trees, will be priority in the early stages of management. Other plans for the property include building a short hiking trail, which will eventually connect to the 100-mile paved Louisville Loop trail. Parks will also conduct environmental education programs for the public to learn about forest stewardship and conservation.

Rolleigh Peterson Educational Forest will be open to the public once the management plan is completed, hiking trails are built and parking areas are established. Additional information about the forest can be found online at http://www.forestry.ky.gov/programs/stateforest/Rolleigh+Peterson+Educational+Forest.htm.

Black walnut plantation found at Rolleigh Peterson Educational Forest.

Invasive species like winter creeper and bush honeysuckle will be removed to improve the health of the walnut plantation.

Black walnut trees were planted in the early 1970s along Floyds Fork.

Floyds Fork serves as a boundary along the Peterson property.

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STEWARDSHIP IN KENTUCKY – A SMALL FARM IN ESTILL COUNTY STANDS TALL

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In 1987, Jack Stickney purchased a small, wooded farm in Estill County and began a long list of tree farming practices that include everything from planting trees to producing shiitake mushrooms to selling carbon credits on a newly emerging market. Hard work, a desire for self-sufficiency, and a genuine appreciation for forest management are undeniable attributes of Stickney. This year, his stewardship efforts will not go unrewarded. Stickney was nominated by foresters from the Kentucky Division of Forestry (KDF) for Outstanding Forest Steward of the Year, and although the competition was tough, he was chosen as the winner for 2008.

Managing the Forest

Stickney, a geologist for the Kentucky Rural Water Association, recognized the need for proper forest management immediately after purchasing the property 22 years ago. Initially, he sought assistance from the KDF for advice on planting trees and improving existing timber stands. In 1997, he became certified as a Forest Steward after signing up for the division's forest stewardship program, which provides free forest management advice to landowners with more than 10 acres of woodlands.

Jason Hunt (KDF Forester) and Jack Stickney (landowner)

Over the years, he has planted more than 800 trees on his 133-acre farm. Black walnut and pecan trees are planted along the rich bottomlands adjacent to Twin Creek and soft mast trees are planted throughout the woodlands to improve wildlife habitat. He has also completed more than 50 acres of timber stand improvement (TSI) by removing vines from crop trees, cutting cull trees, pruning trees and thinning undesirable species.

Stickney works closely with numerous KDF foresters and ranger technicians, including Kristy Whitaker, Chris Osborne, Jason Hunt and Chad Brothers, in the Kentucky River District, and he is quick to credit the division for much of the forestry knowledge he has acquired. He is also an important voice for conservation in his community as evidenced by a string of Tree Farm and Stewardship Forest signs along the back road leading to his property.

Utilizing the Resource

Self-sufficiency is perhaps the most interesting aspect of life on the Stickney farm. Stickney has built a cabin, a barn, a dry kiln, numerous nesting boxes for wildlife and raised beds for organic gardening out of the timber resources on his property. Stickney, along with his wife, Teresa, and son, Caleb has also ventured into farming one of Kentucky's upcoming alternative crops—shiitake mushrooms.

"Farming log-grown shiitake mushrooms in shaded, moist woodlands has great potential for Kentucky," said Stickney. Shiitake mushrooms are a non-timber forest product that can provide additional income for a small farm with plentiful woodlands. Stickney raises the mushrooms for personal use as well as to sell to local restaurants and farmer's markets. The mushrooms are cultivated on small diameter hardwood logs that are left over from cutting and thinning cull trees while doing TSI on his woodlands.

Enterprising with MACED

The latest venture for Stickney has been enrolling as the first landowner in the new carbon credit program administered by Mountain Association for Community Economic Development (MACED). The basis for the program is that trees naturally remove carbon dioxide from the

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STEWARDSHIP IN KENTUCKY – A SMALL FARM IN ESTILL COUNTY STANDS TALL...

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atmosphere and help reduce greenhouse gases. Stickney hopes to add value to his woodlands by receiving payments for the carbon stored in the trees on his property. MACED's program is aimed at landowners who have a management plan and inventory of their forest. The program requires limited logging of higher quality timber, and therefore, will benefit forest health.

Looking Forward

The Stickneys have hosted numerous field days and tours on their farm in an effort to educate other landowners about sustainable farming and forestry, and the land will be a legacy for anyone interested in conservation. Stickney's 9- year-old son is proof and testament. Caleb, who has a natural curiosity and an interest in botany, recently found several American chestnuts sprouting along a steep slope on the farm. There is little doubt that good stewardship will be a part of this farm for many years to come.

Kentucky State Forester Leah MacSwords said, "Forest landowners like Stickney are critical to sustaining our woodlands. Nearly half of the land in our state is forested, and private landowners manage the majority of these forests—89 percent to be exact. This is why KDF foresters are committed to providing forest management advice and to recognizing landowners like Jack Stickney, who are proven to be 'outstanding stewards.'"

Logs inoculated with shiitake mushrooms are stacked throughout the moist, shaded woods. Shiitake mushrooms are grown on hardwood logs that have been cut for timber stand improvement.

An American chestnut sprouting along a steep slope on the Stickney farm.

"REDWOODS OF THE EAST" PLANTED IN SOUTH CAROLINA

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Two American Chestnut tree saplings have been planted at the Riverbanks Zoo and Botanical Garden in Columbia, SC. A gift to the people of South Carolina from the North Carolina Zoo, the trees were propagated from seeds from the American Chestnut Foundation and planted by Junior Master Gardeners during a ceremony April 22, 2009 (Earth Day).

Once known as the Redwoods of the East, the American Chestnut's native range once spanned 900 million acres, and the trees were well known for their size, virility and copious production of chestnuts. In the early 1900s, a blight attacked the trees and has virtually eliminated the once ubiquitous species from the landscape.

Visitors to the Riverbanks Zoo and Botanical Garden can see the two trees being grown, nurtured, propagated and showcased as educational tools.

Junior Master Gardeners plant one of two American Chestnuts dedicated on Earth Day at Riverbanks Zoo and Botanical Garden in Columbia, SC.

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A Publication of the Southern Group of State Foresters

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WHY TERMITES?

Experimental forests and termiticide registration

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Most people think of termites as urban or suburban pests, but termites are essentially forest insects – beneficial in their original setting – whose turf humans have invaded. In the United States, termites cause an estimated $5 billion in damage every year and are of major concern to homeowners across the South. Many people are surprised to learn that the Forest Service tests all of the termiticides (pesticides specifically used to kill termites) marketed in the United States.

The Forest Service termite program got its start in 1935, with much of the early research conducted in cooperation with the U.S. military. The post-World War II housing boom and the development of synthetic insecticides also contributed to the need for systematic termite research. Because forests are the native habitat for termites, it seemed logical for the Forest Service to get involved. In the 1940s, the Forest Service scientists based at the Southern Forest Experiment Station, now the Southern Research Station (SRS), pioneered research on the soil-applied termiticides that are routinely used today.

Today, the SRS Termiticide Testing Program, based in Starkville, MS, is responsible for testing all termiticides proposed to be marketed in the United States, where all termite pesticides must be registered by federal and state regulatory agencies. Termiticides are one of two groups of insecticides (along with public health insecticides, such as malaria sprays) that are required to provide efficacy data (how well they work) for registration. A reputation built by the results of long-term research has led to the designation of the SRS program to test all termite pesticides.

The SRS termite team, led by entomologist Terry Wagner, tests repellent and non-repellent termiticides, chemically impregnated barriers, and other termite control products. Products typically undergo 24 months of laboratory screening and five years of field testing prior to registration. Hundreds of products have been evaluated over the decades.

"Most of the products we test actually fail the registration process," said Wagner. "This directly benefits the American public by keeping ineffective or unsafe products off the market."

Testing is conducted on four national field sites: the Harrison Experimental Forest in Mississippi; the Chipola Experimental Forest in Florida; the Calhoun Experimental Forest in South Carolina, and the Santa Rita Experimental Range in Arizona. All the sites but the last are owned by the Forest Service. (Santa Rita is owned by the State of Arizona and managed by the University of Arizona.) Federal and state ownership of these sites means that long-term, stable experiments are possible with little chance of human-caused disturbance.

In addition to providing efficacy data for product registration and labeling by federal and state regulatory agencies, the termite team conducts other applied and basic research on termite biology, ecology, and behavior—both to determine the effects of control tactics and to better understand how these insects affect forest ecosystems and productivity.

For more information, contact Terry Wagner at 662.338.3112 or twagner01@fs.fed.us

Zoë Hoyle is writer/editor for Compass, the research magazine published by the Forest Service Southern Research Station. Compass is available online at http://www.srs.fs.usda.gov/compass/ , where readers can also subscribe for printed issues.

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TEAMING UP TO PROVIDE COORDINATED SERVICE FOR FOREST LANDOWNERS

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The Alabama Forestry Commission, the Alabama Association of Conservation Districts, the Alabama Soil and Water Conservation Committee, and the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) officially signed a Memorandum of Understanding (MOU) March 11 that will provide more coordinated services to the state's forest landowners.

These four agencies deliver technical and financial assistance to private landowners and land managers in Alabama through their various conservation programs and activities. The purpose of this agreement is to coordinate the inter-agency delivery of forestry-related conservation assistance to sustain the health, diversity and productivity of the state's private working lands: forest land, cropland, pasture and rangeland.

According to State Forester Linda Casey of the Alabama Forestry Commission, "These partners have a long-term commitment to the conservation and stewardship of Alabama's natural resources that will endure beyond the life of this MOU." Casey noted, "Although our staffs have worked together for many years at the local level, this joint partnership brings the state and federal agencies together in an unprecedented effort to provide all non-industrial private forest landowners with efficient and effective services. Strengthening the cooperation between them will result in a broader success in achieving conservation goals."

Steve Cauthen, director of the Alabama Soil and Water Conservation Committee, said, "In order to achieve our water quality and resource management goals, we must be on the ground . . . on the private working lands of Alabama. Private land conservation yields public benefits for all of our citizens. We are very pleased to join with our sister agencies to work for the betterment of our state. This agreement will improve collaboration and reduce duplication of our services. Landowners and our forestry resources will be the beneficiaries of this partnership."

NRCS State Conservationist Gary Kobylski said, "This MOU represents a concerted effort by the partners to deliver our services to the landowners of Alabama more efficiently and in a more timely manner. Landowners need our technical expertise, and together we can make this a very positive experience."

Roy Kendrick, president of the Alabama Association of Conservation Districts, said, "Many of the state's privately-owned forests are not managed as well as they could be. Better management would result in more income for these landowners, as well as better wildlife habitat and cleaner water. By signing this agreement, these agencies are pledging to work closer together in reducing duplication, thereby better serving Alabama's private landowners."

There are nearly 23 million acres of forest land in Alabama. More than 440,000 forest landowners control 79 percent of this forest land. These lands not only support the forest industry and contribute to the state's economy, but also are an integral part of the quality of life for residents of the state. Trees and forests provide clean air, carbon sequestration, flood protection, wildlife habitat, recreation and aesthetic enjoyment. Healthy forests are also vital to clean and abundant supplies of water. Increasing assistance to protect privately-owned forest lands benefits both the environment and community.

To learn more about the partners of this MOU and the services they offer please visit the following Web sites: www.forestry.alabama.gov; www.al.nrcs.usda.gov, and swcc.alabama.gov.

Four agencies officially signed a Memorandum of Understanding (MOU) that will provide more coordinated services to the state's forest landowners. Seated left to right: State Conservationist Gary Kobylski, U.S. Department of Agriculture Natural Resources Conservation Service; State Forester Linda Casey, Alabama Forestry Commission; Roy Kendrick, president of the Alabama Association of Conservation Districts, and Steve Cauthen, director of the Alabama Soil and Water Conservation Committee.

SOUTHERN RESEARCH STATION PUBLICATIONS

Claire Payne, USFS Southern Research Station

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Johnson, Tony G.; Steppleton, Carolyn D.; Bentley, James W. 2009. Southern pulpwood production, 2007. Resour. Bull. SRS–145. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 44 p.

The South's production of pulpwood increased from 64.7 million cords in 2006 to 65.7 million cords in 2007. Roundwood production increased 1.2 million cords to 47.6 million cords and accounted for 72 percent of the total pulpwood production. The use of wood residue declined 1 percent to 18.2 million cords. Alabama led the South in total production at 10.6 million cords. In 2007, 87 mills were operating and drawing wood from the 13 Southern States. Pulping capacity of southern mills increased from 125,093 tons per day in 2006 to 125,565 tons per day, and still accounts for > 70 percent of the Nation's pulping capacity.

Zhou, Guoyi; Sun, Ge; Wang, Xu. [and others]. 2008. Estimating forest ecosystem evapotranspiration at multiple temporal scales with a dimension analysis approach. Journal of American Water Resources Association. 44(1): 208-221. [Editor's note: Southern Research Station scientists Steven G. McNulty, James M. Vose, and Devendra M. Amatya co-authored this publication.]

More than 60 percent of precipitation returns back to the atmosphere and is not available for human use. Accurately quantifying evapotranspiration (ET) is critical to evaluating the effects of land management and global change on water availability, streamflow, nutrient and sediment loading, and ecosystem productivity. The developed ET model was tested with long-term hydro-meteorological data from five research sites in the Southeastern United States and China. Averaged simulation errors for annual ET were within 7.0 percent of measured values. The climate-driven model is sensitive to land surface characteristic parameters and thus has potential to be applied to examine the compounding hydrologic responses to landforms and climate changes at multiple spatial and temporal scales.

Oswalt, Christopher M.; Turner, Jeffrey A. 2009. Status of hardwood forest resources in the Appalachian Region, including estimates of growth and removals. Resour. Bull. SRS-142. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 16 p.

The Appalachian Hardwood Region (AHR) is an important wood-producing area of the Eastern United States and is near a large portion of the U.S. population that is growing considerably. Combined, these two forces create the need for assessments of the hardwood forest resources in the region. The authors present results from an investigation into the forest resources of the AHR, with particular emphasis on the growth and removals of hardwood timber volume in the region. Total timberland acreage in the AHR remained relatively unchanged from the late 1980s and early 1990s (time 1 estimate) to the most recent estimate (time 2). However, the hardwood forests of the AHR continue to mature, and a concomitant decline in early successional hardwood forests is being realized. Moreover, shifts in species composition may be occurring in the region. According to estimates of growth-to-removals ratios, while removals are increasing, growth continues to outpace removals at almost two to one. This study provides an important assessment of the current status and recent utilization of hardwood species in the Appalachians. In addition, it provides a framework in which to continue to monitor the resources of the AHR.

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SOUTHERN RESEARCH STATION PUBLICATIONS...

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Poudyal, Neelam; Cho, Seong Hoon; Bowker, J. Michael. 2008. Demand for resident hunting in the Southeastern United States. Human Dimensions of Wildlife. 13(Number unknown): 158-174.

We modeled hunting demand among resident hunters in the Southeastern United States. Our model revealed that future hunting demand will likely decline in this region. Population growth in the region will increase demand, but structural change in the region's demography (e.g., "browning" and "aging "), along with declining forest land access, will decrease hunting demand. The results suggested that programs encouraging younger and non-white populations to participate in hunting could mitigate a forecast hunting decline. Increasing license fees, while politically risky, should increase agency revenues due to price-inelastic demand. The model developed here can be applied to understand and project hunting demand in the Southeast and adapted to other regions

Lim, Siew Hoon; Bowker, J.M.; Johnson, Cassandra Y.; Cordell, H. Ken. 2009. Perspectives on prescribed fire in the South: does ethnicity matter? Southern Journal of Applied Forestry. 33(1): 17-24.

Using a household survey and regression methods, we assessed preferences for prescribed fire in the Southern United States. We found that the majority of the respondents favored the use of prescribed fire. However, we observed pronounced racial variation in opinions on prescribed fire and its side effects. African Americans and Hispanics were less supportive and were more concerned about the side effects of prescribed fire than whites. We also observed that females tended to be more concerned about the side effects of prescribed fire than males. In addition, education had no effect on preference for prescribed fire in general, but education was found to be negatively associated with concern levels in all three models pertaining to concerns over the side effects of prescribed fire. Concern over the side effects diminished as education increased.

Bishir, John; Roberds, James; Strom, Brian; Wan, Xiaohai. 2009. Documentation and user guides for SPBLOB: A computer simulation model of the joint population dynamics for loblolly pine and the southern pine beetle. Gen. Tech. Rep. SRS-114. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 83 p.

SPBLOB is a computer simulation model for the interaction between loblolly pine (Pinus taeda L.), the economically most important forest crop in the United States, and the southern pine beetle (SPB: Dendroctonus frontalis Zimm.), the major insect pest for this species. The model simulates loblolly pine stands from time of planting until harvest. It mimics day-to-day changes in SPB populations, and the associated tree mortality caused by these bark beetles. In addition, it provides yearly updates of tree mortality due to competition and of growth for the surviving trees. Chiefly, the model and its simulation codes are designed to function as research tools for investigating the influence of stand properties on SPB activities, and of the reciprocal impact of beetles on tree mortality.

Perkins, Brian; Smith, Bob; Araman, Philip. 2008. Analyzing the feasibility of utilizing small diameter hardwood timber for solid wood products and residues. Gen. Tech. Rep. SRS-111. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 6 p.

The eastern hardwood forest contains small diameter timber that is often of lower quality and lower value than larger sawtimber. This small diameter hardwood timber has traditionally been utilized for pulpwood, but it can also be used for lumber and residue production. To increase the utilization of this resource by sawmills, a number of analyses need to be conducted. These analyses include a resource analysis, a yield analysis, an economic analysis, and a market analysis. This report gives detailed instructions for conducting each of these analyses. The successful completion of these analyses will help hardwood lumber companies determine if using small diameter hardwood timber is a good decision for their company.

If you wish to offer comments about the newsletter or Web site, contact Mike Zupko, Southern Group of State Foresters Executive Director at sgsfexec@mindspring.com or (770)267-9630.

SOUTHERN GROUP OF STATE FORESTERS

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JULY 2009

U.S. HOUSE PASSES ENERGY AND CLIMATE BILL WITH IMPORTANT FORESTRY PROVISIONS

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On June 26, the House passed the American Clean Energy and Security Act of 2009 (HR 2454). The bill requires industry to participate in a cap-and-trade program that will reduce domestic greenhouse gas emissions by 17 percent before 2020. Utilities must also supply 15 percent of power generation from renewable sources by 2020. Agriculture and forestry sources are exempt from caps on greenhouse gas reduction and can participate in offset programs that assist industry in achieving emission standards.

A significant compromise in the legislation was assignment of the offset program to the U.S. Department of Agriculture instead of the Environmental Protection Agency (EPA) as proposed in the original bill. A related adjustment installed through a House Agriculture amendment prevents EPA from holding U.S. biofuel producers responsible for deforestation or other land use changes in foreign countries (indirect land use).

An important component in the legislation is the definition for renewable woody biomass that was the subject of protracted debate right up to the vote on the House floor. Definition language in the bill as introduced was highly problematic for both private and federal forest lands to participate in renewable electricity markets. Southern Group of State Foresters persisted in its advocacy for using the definition as contained in the 2008 Farm Bill, which permits forestry agencies to develop state-specific policies and programs as may be necessary. Language brokered through the House Agriculture amendment ultimately adopted the Farm Bill language for private forest lands and modified provisions for federal lands subject to certain constraints for old-growth and late succession forest stands.

Significantly, the bill as passed amends the Clean Air Act to modify the definition for renewable woody biomass contained in the Renewable Fuels Standard (RFS) that was installed in the Energy Independence and Security Act of 2007. The RFS definition has been deemed extremely restrictive if not unmanageable, and rules recently proposed by EPA are the subject of considerable criticism. Procedurally, if HR 2998 becomes law, the Farm Bill definition would likewise replace the RFS language and make the proposed rules moot.

Other important provisions of the bill relative to forestry include:

- Adaptation funds provided to USFS originally limited to National Forests are also available for Cooperative Forestry Assistance programs. SGSF/NASF had worked to secure amendatory language to access adaptation funds.
- Incentives for supplemental carbon sequestration and greenhouse gas emission projects are provided for the "agriculture sector." A House floor colloquy with Chairman Peterson indicated his intent to include forestry projects as part of the Agriculture Incentives Program. SGSF/NASF had supported an amendment that would provide special incentive payments to qualifying forest landowners.
- A tree planting grant program for retail power providers and cooperating organizations to promote energy efficiency. SGSF/NASF had supported this language when originally introduced as a separate bill by Representative Matsui (D-Ca).

The House bill has been referred to the Senate where that chamber must now develop counterpart climate legislation in addition to a Renewable Electricity Standards (RES) bill that recently passed the Energy and Natural Resources Committee. SGSF has expressed concerns with the RES bill as reported out of Committee and will work to achieve content similar to the House language. Meanwhile, the Senate Environment and Public Works Committee has expressed its intent to have a mark-up of cap-and-trade legislation prior to the August recess with passage anticipated in the fall.

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BIO-ENERGY – OPPORTUNITIES-CHALLENGES-CONNECTIONS

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The Commonwealth of Virginia hosted its first conference on bio-energy at George Mason University, Prince William Campus in Manassas, Va., on April 10th, 2009. The forum gave the audience a better understanding of existing alternative energy sources available in Virginia. Two of the products discussed during the conference were municipal solid waste and wood use for electricity. With education, technology, and careful planning for alternative energy production, Virginia may join other states in having an edge on making this process a reality.

U.S. Congressman Rob Wittman, 1st District Va., opened the forum by addressing the Stimulus Plan for the energy needs of the nation. The US Department of Energy will receive approximately $30 million for the new and ongoing research focused on energy efficiency and conservation with the development of new technology. The states will receive an energy grant of $3.1 billion for the production of alternative and renewable resources to aid in the independence of domestic production versus the dependence on the production of foreign oil. He briefly spoke of the Farm Bill with further implementation on the protection of the Chesapeake Bay watershed; the production of cellulosic biofuels, and tax initiatives for agriculture. Lastly, the Congressman listed wind, solar, hydro and tidal power as additional alternative sources of energy.

Steve Waltz, energy adviser to Gov. Timothy M. Kaine and director of the VA Dept. of Mines, Minerals, and Energy, discussed the state's interest in and legislation on revising the energy policy. A grant proposal will be given to those businesses that are willing to create or expand production on energy efficient goods and equipment, as well as clean energy for the environment.

According to Virginia Tech's John Munsell, Virginia's energy goal is to increase alternative energy production by 20 percent within the state. Education on alternative, renewable energy must reach the public with careful planning and education. Another goal is to reduce emission of green house gas by the year 2025, which will aid in offsetting the effects of climate change.

Terry Darton, Va. Dept. of Environmental Quality, expressed concern regarding air quality in the urban and exurban areas of northern Virginia. High ozone levels have become a health hazard to the public. Ozone produces smog, which may irritate the lungs and may cause permanent damage if there is prolonged exposure to an individual. Asthmatics, children and older adults are the most vulnerable to this pollution. Not only does ozone harm humans, it also inhibits the ability of plants to store water and food, which may increase susceptibility to insect and disease damage.

Ozone occurs between April and September. Its components are volatile organic compounds (VOC); oxides of nitrogen (NOx), and sunlight. The new standard for ozone level indicated by the EPA is 0.075 parts per million (ppm) versus the old 0.08 ppm. On March 11, 2009, DEQ submitted a recommendation to the EPA to monitor those larger areas of the state that exceed the .075 ppm level of ozone. These areas are northern Virginia and metro DC, Richmond-Petersburg, Hampton Roads, Fredericksburg and parts of Caroline County. DEQ has monitoring stations set up at Mt. Vernon, Henrico County, Hampton Roads, Stafford County and Caroline County. The challenges facing Virginia with ozone are meeting the current emissions threshold; investing in the best available control technology, and reaching a goal for the lowest ozone emissions under the Clean Air Act and improving the air quality for the citizens of the Commonwealth.

Ted Michaels, president of the Energy Recovery Council, a national trade association representing the private and public sector in the waste to energy (WTE) business, focused on converting municipal solid waste (MSW) into clean energy for electricity. There are 87 WTE facilities in 25 states that combust MSW into energy and continue to recycle ferrous and nonferrous metals. The WTE manages 7 percent of the US waste and disposes 28 million tons a year. One facility has the power generate 2,500 mega watts (MW) with the steam capacity of 2.5 million lbs/hr. The annually generated power is 17 million MW/h, which serves approximately 2 million homes.

One benefit of using WTE plants for alternative energy is the reduction of green house gases, such as methane and carbon dioxide. Unlike a landfill, the methane gas is captured and used for electricity instead of being released into the atmosphere. It also reduces landfill waste volumes by 90 percent. The emission of carbon dioxide is nil compared to the fossil fuel generating plants. Lastly, WTE plants are located near a power provider, which reduces the need for transportation costs.

Two other guest speakers, Andrew Mikel from Stafford County and Shelly Cohen from Amersco, are involved in a case study at

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BIO-ENERGY...

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an MSW plant in Northern Virginia. The plant is capturing landfill gases and converting them into electricity.

John Munsell is a forest management extension specialist with Virginia Tech. He spoke on the production of wood biomass as another possibility for renewable energy. Wood biomass is an accumulation of wood bark and leaves of living and dead woody shrubs and trees. Of the world's total energy supply, only 10.6 percent comes from renewable resources and 77.4 percent comes from coal. The US total production of biomass is 47 percent with wood being 72 percent of that total. A combined total of nine percent comes from solar, wind, hydroelectric and geothermal. As for the nonrenewable resources, 31 percent is natural gas, 32 percent is coal, 17 percent petroleum, and 11 percent comes from nuclear power. The largest producer for woody bio-energy comes from the forest products industry which includes wood chips, saw dust and black liquor gasification.

Other potential sources that can be used for woody biomass include: logging debris; thinning for stand improvement in plantations; removal of non-utilized species; stands severely damaged by insects, disease and weather; plantations for bio-energy use; urban wood waste, and live or dead tree hazards. With the removal of logging residues during harvesting, 65 percent of total logging can be used as bio-energy. Currently 25 percent to 45 percent of tree biomass is left on the site after harvesting. The Commonwealth of Virginia has the capability to produce 760 MW of biomass with 500 MW in forest residues and 18 MW in urban wood waste – another economic boost for state revenues.

The benefits of using wood biomass are environmental, economic and as a source of alternative energy. The environmental benefits include forest health by the reduction of wildfire risk; mortality from insects and disease, and the recovery of land degradation. As for air quality, the emission of green house gases and particulate matter will be reduced. Landowners may increase their income by having plantations strictly for the use of bio-energy. The cost of site preparation will be reduced due to the removal of logging debris and undesired tree species. The energy benefit includes the reduction of fossil fuels with this renewable energy and independence in domestic energy production.

Some of the challenges facing woody biomass include the cost of technology in the facility for bio-energy production, and developing a market for biomass as competition grows in the energy markets. Other factors include competition for use in other wood products; environmental concerns with sustainability of our forests, and community acceptance as an alternative energy source. Lastly, policy will play a major role on the definition of biomass and what restrictions will be in place when it comes to extracting wood from private and public lands.

Roy Byrd from North American Energy Services presented information on the Pittsylvania Power Station owned by Dominion in Hurt, VA. This plant has been in operation since 1994 and was purchased by Dominion in 2004. The electricity producing, wood-chip burning plant is one of the largest biomass stations on the East Coast. More than 90 percent of its supply comes from clean, untreated waste from logging operations, saw and paper mills. This facility utilizes the wood waste for energy which would otherwise be dumped into landfills and burned inefficiently. This plant produces enough electricity to power 20,000 homes with 3,300 tons of wood waste dumped each day by 150 trucks. The radius for suppliers to the plant is 100 miles, increasing the cost efficiency for transportation and fuel costs.

With proper allocation and monitoring of funds from the Federal Government Stimulus Plan and efficient and effective policies put in place by the state government, these renewable energy sources can make a sizeable impact within the Commonwealth of Virginia. Taking into account not only the reduction of green house gas emissions, the health of our forests and the well being of the public at large, these bio-energy options can improve air quality, reduce our reliability on fossil fuels, offer monetary benefits for landowners and present future employment opportunities for the citizens of Virginia.

The Southern Perspective

A Publication of the Southern Group of State Foresters

JULY 2009

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HOLIDAY LAKE FORESTRY CAMP – MORE THAN JUST TREES!

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The nation's longest-running forestry camp for youth concluded its 63rd annual edition last month. The Virginia Department of Forestry's Holiday Lake Forestry Camp is a week-long residential program that receives generous financial support from forest industries, conservation agencies, organizations and individuals.

Planning for Forestry Camp began just after the close of World War II, with the first program being held in 1947. The camp has been a summer tradition for teens ever since.

More than 100 young people were nominated for the 80 spots at camp this year. Teachers, natural resource professionals and others working with youth ages 13 to 16 must nominate the teens for camp. Nominees must be Virginia residents 13-16 years old with good academic standing, an interest in natural resources, and must not have attended Forestry Camp before. Each camper who was selected to attend was awarded a $200 scholarship to help defray the $260 cost of the camp.

"Forestry Camp is much more than a walk in the woods," said Ellen Powell, VDOF's conservation education coordinator. "The camp is comprehensive, academic in nature and provides an excellent introduction to career opportunities in the natural resources arena."

Campers experience hands-on learning about wildlife habitat, tree identification, timber harvesting, reforestation, environmental protection and more. They also take part in field trips, exploratory classes, outdoor recreation and a Lumberjack Field Day.

This year's top-scoring camper was Daniel Nadkarni from Albemarle County. He received a $100 savings bond for his hard work.

"One unique aspect to Forestry Camp is that school teachers may also attend the program," Powell said. "This year, four teachers took part in the program and they each earned more than 30 hours of recertification training. In addition, they took away lots of resources they can use in their classrooms."

Planning is already underway for the 64th edition of the program in June 2010.

Kids learn safe tree climbing on urban forestry day.

Campers compete in cross-cut sawing on lumberjack field day.

RIGHT TO PRACTICE FORESTRY

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Forest landowners in South Carolina now have the rule of law behind them as the state enacted new legislation called the Right to Practice Forestry. The law encourages landowners to manage their forest land for the production of forest products, wildlife habitat, recreation and other natural resource values. By doing so, landowners will receive exemptions from local (mainly county) ordinances that are designed to control the appearance of communities as they transition from forest land to residential and commercial development.

State Forester Gene Kodama said, "The new law will help to create a business climate that encourages forest landowners to practice long-term, sustainable forestry. The legislation received broad support from forestry, agriculture and natural resource agencies and organizations across the state."